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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q68403

Masahiro KOMATSU

Appln. No.: 10/066,767

Group Art Unit: 2681

Confirmation No.: 5814

Examiner: Not assigned

Filed: February 6, 2002

For: TRANSMISSION POWER CONTROL METHOD, BASE STATION, MOBILE STATION, AND  
MOBILE COMMUNICATION SYSTEM

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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APR 26 2004

Technology Center 2600

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

1. Japanese Unexamined Patent Application No. H09-121193, published May 6, 1997.
2. Japanese Unexamined Patent Application No. 2002-515712, published May 28, 2002.
3. Japanese Unexamined Patent Application No. 2000-312179, published  
November 7, 2000.
4. Japanese Unexamined Patent Application No. H07-231473, published  
August 29, 1995.
5. Japanese Unexamined Patent Application No. H05-199167, published August 6, 1993.

One copy of each of the listed documents is submitted herewith.

INFORMATION DISCLOSURE STATEMENT

U.S. Appln. No.: 10/066,767

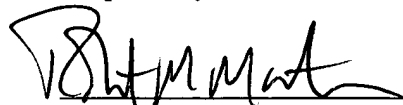
The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of a Communication of a corresponding Japanese Office Action Dated January 7, 2004 and an English translation of the pertinent portions thereof which cites such documents and indicates the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,



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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: April 23, 2004

## Q68403

- Regarding Claims 1 through 4, 12 and 13
  - Publications 1 and 2
  - Remarks

See Claims 1 through 4 of publication 2 regarding the point of prediction, and Claims 1 and 2 and Paragraph numbers (0039) and (0040) of publication 1 regarding the rest of the constitution. Prediction control per se is a well known and commonly used means that is described as a control technique in any textbook.

- Claims 5 and 14
  - Publications 1, 2 and 3

The point of prediction is described in Claims 1 through 4 of publication 2, and the control of transmission power according to the transmission path state is described in Paragraphs number (0039) and (0040) of publication 1; regarding the rest of the constitution, see Paragraph number (0001) of publication 3.

- Regarding Claims 6 through 7, 15 and 16
  - Publications 1 and 2
  - Remarks

See Claims 1 through 4 of publication 2 regarding the point of prediction, and Claims 1 and 2 and Paragraphs number (0039) and (0040) of publication 1 regarding the rest of the constitution.

- Claims 8 and 17
  - Publications 2 and 3
  - Remarks

The point of prediction is described in Claims 1 through 4 of publication 2, and the control of transmission power according to the transmission path state is described in Paragraphs number (0039) and (0040) of publication 1; regarding the rest of the constitution, see Paragraph number (0001) of publication 3.

- Regarding Claims 9, 10, 18 and 19
  - Publications 1, 2 and 4
  - Remarks

The point of prediction is described in Claims 1 through 4 of publication 2, and the control of transmission power according to the transmission path state is described in Claims 1 and 2 of publication 1; regarding the rest of the constitution, see Claim 5 of publication 4.

- Regarding Claims 11 and 20
  - Publications 1, 2, 3 and 4
  - Remarks

The point of prediction is described in Claims 1 through 4 of publication 2; the control of transmission power according to the transmission path state is described in Paragraphs number (0039) and (0040) of publication 1; the constitution of “mobile device ... wherein” is described in Paragraph number (0001) of publication 3; regarding the rest of the constitution, see Claim 5 of publication 4.

- Regarding Claim 21
  - Publications 1, 2, 3, 4 and 5
  - Remarks

Regarding the point of prediction, see Claims 1 through 4 of publication 2.

A constitution corresponding to “downstream transmission power control, which controls the downstream transmission power of the aforementioned base station... the transmission path state of the aforementioned downstream link using location as a parameter...” is described in Claim 1 of publication 1.

Regarding the constitution of the “base station which controls, the reception state of the downstream link at the mobile device comprising: a base reception unit which receives the upstream wireless signal transmitted via the aforementioned upstream link as a downstream reception signal” and the point of “comprising a downstream transmission power control unit which controls the downstream transmission power of the aforementioned base station based on the aforementioned transmission power control

commands and the transmission path state of the future downstream link obtained as a result of searching the aforementioned database based on aforementioned predicted future location of the aforementioned mobile device; and a base transmission unit which perform transmission processing with the aforementioned downstream transmission power as instructed by the aforementioned downstream transmission power control unit," a corresponding constitution is described in publication 3, Figure 1, etc.

Regarding the "downstream transmission power control command extraction unit which extracts the aforementioned downstream transmission power control commands from the aforementioned upstream reception signal; a mobile device location recognition unit which recognizes the current location of the aforementioned mobile device based on the aforementioned upstream reception signal; a mobile device speed recognition unit which recognizes the current speed of movement of the aforementioned mobile device based on the aforementioned upstream reception signal; and a mobile device location prediction unit which predicts the future location of the aforementioned mobile device based on the current location of the aforementioned mobile device and the current speed of movement of the aforementioned mobile device," a corresponding constitution is described in publication 4, Paragraphs number (0032) and (0037).

Regarding the "database which records the transmission path state of the aforementioned downstream link using location as a parameter," see (Constitution) on page 1 of publication 5, if necessary.

- Regarding Claims 23 and 28

- Publications 1, 2, 3, 4 and 5

- Remarks

For the features described directly in the claims, see (Constitution) on page 1 of publication 5.

- Regarding Claims 24 through 26

- Publications 1, 2, 3, 4 and 5

- Remarks

The features described directly in the claims are no more than design features.

- Regarding Claim 27

- Publications 1, 2, 3, 4 and 5

- Remarks

Regarding the point of prediction, see Claims 1 through 4 of publication 2.

Regarding "a base station wherein upstream transmission power control commands are transmitted from said base station via a downstream link so that the reception state of the upstream link at said base station become good, and the upstream transmission power of the aforementioned mobile device is controlled by means of said upstream transmission power control commands comprising: a base reception unit which receives the upstream wireless signal transmitted via the aforementioned upstream link as a downstream reception signal," "an upstream reception state estimation unit which estimates the upstream reception state of the aforementioned upstream link based on the aforementioned upstream reception signal," and "a mixing unit which outputs a mixed signal obtained by mixing the aforementioned generated upstream transmission power control commands and the upstream transmission information data, and a base transmission unit which performs transmission processing of the aforementioned mixed signal," a corresponding constitution is described in publication 3, Figure 6, etc.

Regarding the "mobile device location recognition unit which recognizes the current location of the aforementioned mobile device based on the aforementioned upstream reception signal; a mobile device speed recognition unit which recognizes the current speed of movement of the aforementioned mobile device based on the aforementioned upstream reception signal; and a mobile device location prediction unit which predicts the future location of the aforementioned mobile device based on the current location of the aforementioned mobile device and the current speed of movement of the aforementioned mobile device," a corresponding constitution is described in publication 4, Paragraphs number (0032) and (0037).

Regarding the "database which records the transmission path state of the aforementioned downstream link using location as a parameter; and an upstream transmission power control command generation unit which generates the aforementioned upstream transmission power control commands that control the upstream transmission power of the aforementioned mobile device based on the aforementioned estimated upstream reception state and the future transmission path state of the upstream link obtained as a result of

searching the aforementioned database based on the aforementioned predicted future location of the mobile device," a corresponding constitution is described in Claim 2 of publication 1.

Regarding the "database which records the transmission path state of the aforementioned downstream link using location as a parameter," see (Constitution) on page 1 of publication 5, if necessary.

- Regarding Claims 29 through 31
  - Publications 1, 2, 3, 4 and 5
  - Remarks

SIR, BER, FER, etc., are well known as transmission path state parameters.

- Regarding Claims 32 through 35
  - Publications 1, 2, 3, 4 and 5
  - Remarks

The features described directly in the claims are no more than design features.

- Regarding Claim 36
  - Publications 1, 2, 3, 4 and 5
  - Remarks

Regarding the point of prediction, see Claims 1 through 4 of publication 2.

Regarding "a mobile device wherein upstream transmission power control commands are transmitted from a base station via a downstream link so that the reception state of the upstream link at said base station become good, and the upstream transmission power of the aforementioned mobile device is controlled by means of said downstream transmission power control commands comprising: a mobile reception unit which receives the downstream wireless signal transmitted via the aforementioned downstream link as a downstream reception signal; a downstream transmission power control command extraction unit which extracts the aforementioned downstream transmission power control commands from the aforementioned downstream reception signal" and "a mobile transmission unit which performs transmission processing at the upstream transmission power instructed by the aforementioned upstream transmission power control unit," a corresponding constitution is described in publication 3, Figure 7, etc.

Regarding the "mobile device location recognition unit which recognizes the current location of the aforementioned mobile device; a mobile device speed recognition unit which recognizes the current speed of movement of the aforementioned mobile device; and a mobile device location prediction unit which predicts the future location of the aforementioned mobile device based on the current location of the aforementioned mobile device and the current speed of movement of the aforementioned mobile device," a corresponding constitution is described in publication 4, Claim 5.

Regarding the "database which records the transmission path state of the aforementioned downstream link using location as a parameter; and an upstream transmission power control unit which controls the upstream transmission power of the aforementioned mobile device based on the aforementioned upstream transmission power control commands and the future transmission path state of the upstream link obtained as a result of searching the aforementioned database based on the aforementioned predicted future location of the mobile device," a corresponding constitution is described in Claim 2 of publication 1.

Regarding the "database which records the transmission path state of the aforementioned upstream link using location as a parameter," see (Constitution) on page 1 of publication 5, if necessary.

- Regarding Claims 37 through 38
  - Publications 1, 2, 3, 4 and 5
  - Remarks

The features described directly in the claims are no more than design features.

- Regarding Claim 39
  - Publications 1, 2, 3, 4 and 5
  - Remarks

Storing the transmission path state in a database using location as a parameter is described under (Constitution) on page 1 of publication 5; regarding the remaining constitutive elements, corresponding constitutive elements are disclosed in other publications.

Regarding Claims 40 and 41

· Publications 1, 2, 3, 4 and 5

· Remarks

The features described directly in the claims are no more than design features.

#### List of Cited Literature

1. Unexamined Patent Application Publication H09-121193
2. International Publication No. 99/59363 Pamphlet (1999). The equivalent Kohyo Publication is 2002-515712.
3. Unexamined Patent Application Publication 2000-312179
4. Unexamined Patent Application Publication H07-231473
5. Unexamined Patent Application Publication H05-199167

Substitute for Form 1449 A &amp; B/PTO

Complete if Known

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Application Number	10/066,767
Confirmation Number	5814
Filing Date	February 06, 2002
First Named Inventor	Masahiro KOMATSU
Art Unit	2681
Examiner Name	Not assigned
Attorney Docket Number	Q68403

Sheet 1 of 1

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
		JP	H09-121193		05-06-1997		No
		JP	2002-515712	A	05-28-2002		No
		JP	2000-312179		11-07-2000		No
		JP	H07-231473		08-29-1995		No
		JP	H05-199167		08-06-1993		No

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation <sup>6</sup>
		[Press F11]	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to indicate here if English language Translation is attached.